



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-1155; Project Identifier MCAI-2022-00655-T]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus SAS Model A321-251N, A321-251NX, A321-252N, A321-252NX, A321-253N, and A321-253NX airplanes. This proposed AD was prompted by a stress analysis on the engine structure that indicated that the fail-safe lug may not be able to sustain, during one inspection interval as currently specified in an airworthiness limitations item, the loads deriving from the engagement of the secondary load path within that inspection interval for the aft engine mount system. This proposed AD would require repetitive detailed inspections of the aft engine mount and secondary load path clearance fail-safe pin and replacement of the engine if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that will be incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [easa.europa.eu](http://easa.europa.eu). You may find this material on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu). You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at [regulations.gov](http://regulations.gov) by searching for and locating Docket No. FAA-2022-1155.

### **Examining the AD Docket**

You may examine the AD docket at [regulations.gov](http://regulations.gov) by searching for and locating Docket No. FAA-2022-1155; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th Street, Des Moines, WA 98198; telephone and fax 206-231-3225; email [dan.rodina@faa.gov](mailto:dan.rodina@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-1155; Project Identifier MCAI-2022-00655-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Dan Rodina, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th Street, Des Moines, WA 98198; telephone and fax 206-231-3225; email

dan.rodina@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2022-0089, dated May 17, 2022 (EASA AD 2022-0089) (also referred to as the MCAI), to correct an unsafe condition for all Airbus SAS Model A321-251N, A321-251NX, A321-252N, A321-252NX, A321-253N, and A321-253NX airplanes.

This proposed AD was prompted by a weakness identified by the manufacturer in the design of the CFM LEAP-1A aft engine mount waiting fail-safe male lug on the engine side. During a stress analysis on the engine structure, CFM discovered that the fail-safe lug may not be able to sustain, during one inspection interval, as currently specified in airworthiness limitation item (ALI) task 712232-01-1, the loads deriving from the engagement of the secondary load path within that inspection interval for the aft engine mount system. Consequently, the inspection interval must be reduced accordingly in order to meet the predicted life of the fail-safe lug. The FAA is proposing this AD to address potential failure of the LEAP-1A aft engine mount waiting fail-safe male lug, which could lead to engine mount rupture, possibly resulting in engine loss during flight and loss of control of the airplane. See the MCAI for additional background information.

## **Related Service Information Under 1 CFR Part 51**

EASA AD 2022-0089 specifies procedures for repetitive detailed inspections (DET) for discrepancies of the aft engine mount and secondary load path clearance fail-safe pin for each engine, and replacement of any engine with discrepant findings on the secondary load path clearance check.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements in this NPRM**

This proposed AD would require accomplishing the actions specified in EASA AD 2022-0089 described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

### **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022-0089 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0089 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2022-0089 does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD

requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2022-0089. Service information required by EASA AD 2022-0089 for compliance will be available at regulations.gov by searching for and locating Docket No. FAA-2022-1155 after the FAA final rule is published.

### **Costs of Compliance**

The FAA estimates that this proposed AD would affect 156 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

#### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Up to 4 work-hours X \$85 per hour = \$340	\$0	Up to \$340	Up to \$53,040

The FAA estimates that it would take 64 work-hours (at \$85 per work-hour) to replace an engine, if required based on the results of any required actions. The FAA has received no definitive data on which to base the estimate for the cost of a replacement engine or any necessary additional on-condition actions that would be required by this proposed AD. The FAA has no way of determining the number of aircraft that might need these on-condition actions.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Airbus SAS:** Docket No. FAA-2022-1155; Project Identifier MCAI-2022-00655-T.

**(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Airbus SAS Model A321-251N, A321-251NX, A321-252N, A321-252NX, A321-253N, and A321-253NX airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 71, Powerplant.

**(e) Unsafe Condition**

This AD was prompted by a stress analysis on the engine structure that indicated that the fail-safe lug may not be able to sustain, during one inspection interval, as currently specified in airworthiness limitation item (ALI) task 712232-01-1, the loads deriving from the engagement of the secondary load path within that inspection interval for the aft engine mount system. The FAA is issuing this AD to address potential failure of the LEAP-1A aft engine mount waiting fail-safe male lug, which could lead to engine mount rupture, possibly resulting in engine loss during flight and loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

### **(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0089, dated May 17, 2022 (EASA AD 2022-0089).

### **(h) Exceptions to EASA AD 2022-0089**

(1) Where paragraph (3) of EASA AD 2022-0089 specifies corrective action if “discrepancies are detected, as defined in the SB,” for purposes of this AD, discrepancies include a fail safe pin that does not rotate freely, or has damage (dents, scratches, nicks, corrosion, or cracks).

(2) The “Remarks” section of EASA AD 2022-0089 does not apply to this AD.

### **(i) Additional AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(j) Related Information**

(1) For EASA AD 2022-0089, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [easa.europa.eu](http://easa.europa.eu). You may find this EASA AD on the EASA website [atad.easa.europa.eu](http://atad.easa.europa.eu). You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket at [regulations.gov](http://regulations.gov) by searching for and locating Docket No. FAA-2022-1155.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th Street, Des Moines, WA 98198; telephone and fax 206-231-3225; email [dan.rodina@faa.gov](mailto:dan.rodina@faa.gov).

Issued on September 2, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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